BACKGROUND

α/β-hydrolase domains are characterized by a catalytic triad composed of a histidine, an acid and a nucleophile. ABHD5 (α/β-hydrolase domain containing 5), also known as CGI-58, NCIE2 or CDS, is a 349 amino acid protein that contains an α/β-hydrolase domain through which it conveys catalytic function. Localized to the surface of lipid droplets, ABHD5 is widely expressed and interacts with Perilipin on the surface of lipid droplets where it facilitates lipolysis, the breakdown of fat. Defects in the gene encoding ABHD5 are the cause of Chanarin-Dorfman syndrome (CDS), an autosomal recessive inborn error of lipid metabolism with impaired long-chain fatty acid oxidation. CDS symptoms include congenital generalized ichthyosis, vacuolated leukocytes, hepatomegaly, myopathy, cataracts, neurosensorial hearing loss and developmental delay.

REFERENCES


CHROMOSOMAL LOCATION

Genetic locus: ABHD5 (human) mapping to 3p21.33; Abhd5 (mouse) mapping to 9 F4.

SOURCE

ABHD5 (36A) is a mouse monoclonal antibody raised against recombinant ABHD5 of human origin.

PRODUCT

Each vial contains 100 µg IgG1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

Store at 4°C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

ABHD5 (36A) is recommended for detection of ABHD5 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for ABHD5 siRNA (h): sc-78146, ABHD5 siRNA (m): sc-140773, ABHD5 shRNA Plasmid (h): sc-78146-SH, ABHD5 shRNA Plasmid (m): sc-140773-SH, ABHD5 shRNA (h) Lentiviral Particles: sc-78146-V and ABHD5 shRNA (m) Lentiviral Particles: sc-140773-V.

Molecular Weight of ABHD5: 39 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201, ABHD5 (h): 293 Lysate: sc-112234 or ABHD5 (m): 293T Lysate: sc-118168.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG BP-HRP: sc-516102 or m-IgG BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminal Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA

ABHD5 (36A): sc-100468. Western blot analysis of ABHD5 expression in non-transfected: sc-117760 (A) and mouse ABHD5 transfected: sc-118168 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS


PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.